MOTIVATIONAL EFFECTS OF ACCOUNTABILITY AND RECOGNITION ON
TASK AND CONTEXTUAL PERFORMANCE

By

AMY L. BROWNLEE

Finally, I want to thank my friends including my classmate who reminded me that sometimes you have to go out and have fun. They made sure that I never lost my perspective for any amount of time. They have been there for me throughout this process including doing everything from walking my dog to going with me to celebrate every little milestone.

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By

Amy L. Brownlee

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Chairperson: Stephan J. Motowidlo
Major Department: Management

Researchers have developed a number of models that
portray performance in an organization as being multi-
dimensional. One of these models defines performance as
consisting of behaviors that support task accomplishment
(task performance) and behaviors that support the
environment in which the task is performed (contextual
performance) (Borman & Motowidlo, 1993). This distinction
was made in order to investigate how selection procedures
might differ depending on the type of performance being
examined. However, selection might not be the only area
that can benefit from examining a more complex, multi-
dimensional definition of performance.

Literature regarding how to motivate performance has focused primarily on those behaviors that lead to task accomplishment. This same research has virtually ignored how organizations might be able to directly affect behaviors that support the context in which the task is performed like helping, cooperating, and motivating others.

According to motivation theory, different motivation techniques should lead to different patterns of behavior by altering the costs and benefits associated with different behaviors. We manipulate the presence of peer accountability (the extent to which individuals are accountable to group members) and group versus individual recognition (recognition based on individual or group performance) to determine the motivational effects on both task and contextual performance.

Since both high accountability and group recognition increase the salience of the social environment in which a task is performed, the benefit of performing interpersonally directed behavior should also increase. Therefore, it is hypothesized that contextual performance will be higher under conditions of high versus low accountability and group versus individual recognition. Results support both of these hypotheses.

Although high accountability and group recognition
increase the salience of the social environment, it has
been shown that high accountability and individual (not
group) recognition tend to increase an individual's belief
that individual effort toward the task is important.
Therefore, the benefit associated with performing these
task behaviors should increase. Thus, it is hypothesized
that task performance will be higher under high versus low
accountability and lower under group versus individual
recognition. Only the hypothesis regarding the effect of
accountability on task performance was supported.

CHAPTER ONE
INTRODUCTION, LITERATURE REVIEW, AND HYPOTHESES

Introduction

For many years, research in management conceptualized performance as consisting of only one dimension (Astin, 1964). More recent research accepts that performance is more complex than originally conceived and has tried to define multiple dimensions of performance (Borman & Motowidlo, 1993; George & Brief, 1992; Katz & Kahn, 1978; Smith, Organ, & Near, 1983). Some research has attempted to find dimensions of performance that might be related to job and work satisfaction but not formally rewarded or required by the organizations (Smith, et al., 1983). This research yields a definition of performance that included in-role performance and organizational citizenship behavior. Organizational citizenship behavior, composed of behaviors such as helping, cooperating, speaking well of the organization, and volunteering, has been conceived as being a behavioral outcome of satisfaction and not required by the organization (Organ, 1988a).

Other research that has focused on multiple dimensions of performance sought to answer a very different question. The purpose of defining organizational citizenship behavior is to show how satisfaction might affect individual behavior and, ultimately, organizational effectiveness (Organ, 1988a). Additionally, a multi-dimensional definition of performance has been investigated to discover the implications such a definition might have for the organization in areas like selection (Borman & Motowidlo, 1993). This research defines performance as being composed of behaviors directed at task accomplishment (called task performance) as well as behaviors that support the context in which the task is performed (called contextual performance). Although this second set of behaviors is behaviorally similar to organizational citizenship behavior, the purpose of this research is not to examine the behavioral consequences of satisfaction but to examine how these different dimensions of performance might affect the effectiveness of selection systems (Motowidlo, in press). Borman and Motowidlo (1993) believe that the predictors of effective task performance might be much different than the predictors of contextual performance.

However, selection is not the only area where this distinction might be useful for future research.

Organizations are not only interested in hiring good employees but also in motivating these employees to perform all types of valued behaviors. Despite the fact that research supports the task and contextual model of performance (Conway, 1999; Kiker & Motowidlo, in press; Motowidlo & Van Scotter, 1994), the motivation literature has focused on how to motivate task performance. Accordingly, this dissertation seeks to address the issue of whether or not an organization can increase the likelihood that individuals will display desired levels of both dimensions of performance.

While an extensive body of research has been devoted to identifying methods of increasing task performance (see Kanfer, 1990 for summary; Locke & Latham ,1990), very little has been written about how organizations can influence interpersonal behavior such as helping, encouraging, and supporting co-workers. Instead, the primary emphasis of research regarding these interpersonal behaviors has been on identifying individual differences that predispose people to engage in this type of behavior (i.e., McNeely & Meglino, 1994; Moorman & Blakely, 1995; Organ & Lingl, 1995; Smith, et al., 1983). As a result, we may know how to motivate task performance and how to identify individuals that are likely to engage in helpful

behavior but we cannot help organizations determine how to regularly encourage dimensions of performance other than task performance.

Nonetheless, the literature on motivation may help us identify several potential mechanisms by which organizations can motivate contextual performance. Based on motivation theories utilizing a cost-benefit framework (Blau, 1964; Vroom 1964), techniques that increase the importance of the social environment in which the task is performed should lead to increased contextual performance since these behaviors will be valued more. Individual versus group reward systems have been shown to affect behaviors such as cooperation and coordination (Shi, Luh, & Kleinmann, 1994), which are similar to behavior defined by Borman and Motowidlo (1993) as supporting the context in which the task is performed. Additionally, the degree of accountability of individuals has been shown to affect helping behavior (Schoenrade, Batson, Brandt, & Loud, 1986). However, a direct link between these variables and contextual performance has yet to be investigated. Therefore, in this dissertation I propose and investigate the link between reward structure, accountability and specific contextual behaviors such as helping, remaining pleasant, and being cooperative.

Examining the motivational effects of these techniques on just one dimension of performance is only part of the picture. Since the motivation literature has ignored contextual performance, the simultaneous effect of motivation techniques on multiple dimensions of performance is unknown (see Wright, George, Farnsworth & McMahan, 1993 for exception). Therefore, I will examine how these motivation techniques affect not only contextual performance but also task performance.

Literature Review

First, the literature review will define specifically the different dimensions of performance that will be examined in the research. Next, theoretical bases used to explain why individuals perform both task and contextual performance will be reviewed along with the empirical support for these theories. Finally, techniques based on motivation theory that might prove to be useful in motivating the different dimensions of performance will be discussed.

Performance

Performance can be thought of as the sum of behaviors that are valued by an organization. These behaviors help the organization to achieve its goals (Astin, 1964). Performance reflects members' behaviors that increase or

detract from organizational effectiveness (Campbell, Dunnette, Lawler, & Weick, 1970). Performance is a variable that an individual is able to influence, such as a specific behavior, as opposed to an outcome of that variable like productivity (Kanfer, 1990).

Classical theorists originally conceived the construct of job performance as being uni-dimensional or composed of one factor (Astin, 1964). Since that time, however, the construct of job performance has been expanded to include other dimensions. The multiple dimensions that comprise performance can be defined in a variety of ways. Previous research has presented performance as consisting of in-role and extra-role behaviors such as organizational citizenship behaviors (i.e., Bateman & Organ, 1983; Katz & Kahn, 1978). According to this differentiation, only in-role behaviors are formally recognized and rewarded by the organization.

In an attempt to explain how satisfaction might affect performance, Smith, et al. (1983) developed a two dimensional model of performance consisting of in-role behaviors and organizational citizenship behavior (OCB). Citizenship behavior includes helping, cooperating, speaking well of the organization, volunteering and representing the organization at public functions (Smith, et al., 1983). OCB is not formally recognized or rewarded

by the organization but promotes the effective functioning of the organization (Organ, 1988a).

Other models of performance behaviorally similar to the above dichotomies include literature regarding prosocial organization behavior (Brief & Motowidlo, 1986) and organizational spontaneity (George & Brief, 1992). Prosocial organizational behavior differs from organizational citizenship behavior in that prosocial behavior does not have to be organizationally effective. Organizational spontaneity is also similar to organizational citizenship but does not include the requirement that the behavior must go unrewarded by the organization. Additionally, research on organizational spontaneity has concentrated on how affect influences the performance of this behavior (George, 1991; George & Brief, 1992).

Somewhat different than these conceptualizations of performance is to define the dimensions of performance as reflecting those behaviors that are necessary in the performance of one's task and those behaviors that affect the environment in which the task is performed (Borman & Motowidlo, 1993). This definition differs from these other conceptualizations of performance in a number of ways, as discussed below.

<u>Different dimensions of performance</u>

Unlike in-role behavior that may include required behaviors (i.e., mentoring) not directed at task accomplishment, task performance is a dimension of overall performance that only includes behaviors that support the technical processes of an organization either directly or indirectly (Borman & Motowidlo, 1993). Behaviors involving the transformation of inputs to outputs support the technical core or processes directly. The behaviors supporting the technical core indirectly include ones that maintain or service these processes. For instance, the acquisition of resources and the selling of output are included in the dimension of task performance because they support the technical core indirectly.

The behaviors that embody task performance are usually defined in formal job descriptions (Borman & Motowidlo, 1993). For instance, task performance for a college professor might include behaviors associated with teaching like preparing a lecture as well as behaviors associated with conducting research like conducting an experiment. Typically, these are behaviors that are recognized and rewarded by the organization. In general, task performance is a narrower concept than role performance (Borman & Motowidlo, 1993). Role performance can include behaviors

other than task performance. For example, one employee, because of tenure, might be expected to help new members learn their job while another employee who holds the exact same job does not have that expectation. In this case, the first employee's role would include helping new members of the organization while the other employee's role would not even though both have the same task performance requirements.

Behaviors that constitute task performance include balancing a cash drawer for a bank teller, attaching a wheel to a car for an assembly line worker, and executing trades for a stockbroker. All of these behaviors are specific to one job within an organization although these same jobs across organizations would probably have similar characteristics. In general, task performance requirements vary from job to job within an organization but are similar with regard to the same job across organizations (Borman & Motowidlo, 1993).

In this model, the second dimension of performance is defined as contextual performance. Contextual performance does not support the technical processes but impacts the social and psychological environment in which the task is performed (Borman & Motowidlo, 1993). The construct of contextual performance is similar behaviorally to extra-

role behavior or OCB but is different than these other constructs in very important ways.

A primary difference is the motivation behind attempting to define the performance construct. The OCB literature is based on the idea that job and work satisfaction leads to behaviors, not typically rewarded or recognized by the organization, that can influence organizational effectiveness. The task and contextual performance dichotomy is based on the premise that a more specific performance definition is needed to ensure accurate and effective selection (Motowidlo, in press).

Additionally, extra-role or organizational citizenship behaviors have been defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988a: p. 4). Contextual performance, by definition, does not have to be "extra-role" or beyond role prescriptions. It is likely that many contextual activities will not be part of a formal job or task description but there is no reason why they could not be. In general, though, contextual performance will be less likely than task performance to be enforceable or formally required (Borman & Motowidlo, 1993; Organ, 1997).

Although contextual performance was originally conceived as a five dimensional model (Borman & Motowidlo, 1993), recent empirical results suggest that these five behavioral dimensions can be collapsed into three mega-dimensions (Coleman & Borman, in press). The three dimensional model is based on analyses of behavioral descriptions used in both the organizational citizenship behavior as well as contextual performance literature. The three dimensions are interpersonal citizenship performance, organizational citizenship performance, and job/task citizenship performance.

Interpersonal citizenship performance includes behaviors such as helping, cooperation, courtesy, and motivating coworkers. In general, these behaviors would be aimed at or directly benefit others in the organization. The dimension of interpersonal citizenship is similar behaviorally to other helping constructs. This dimension is similar to the contextual performance dimension of interpersonal facilitation (Kiker & Motowidlo, in press; Van Scotter & Motowidlo, 1996) and the organizational citizenship dimension of altruism (Smith, et al., 1983) and OCB-I (Williams & Anderson, 1991). The interpersonal citizenship dimension would seem to be important for those organizations that use teams, groups, or require

interpersonal interaction between co-workers in order to be effective.

The organizational citizenship performance dimension is comprised of representing the organization, showing loyalty to the organization, and complying. This dimension consists of behaviors that target the organization as the beneficiary as opposed to other organizational members. This dimension is similar to OCB-O (Williams & Anderson, 1991) and generalized compliance (Smith, et al., 1983) in the organizational citizenship behavior literature. This dimension would also encompass job dedication in the contextual performance literature (Van Scotter & Motowidlo, 1996).

Lastly, the third dimension is job/task citizenship performance, which includes persistence, initiative, and self-development. Behavioral examples of this dimension include finding work to do when one's own tasks are completed and enrolling in necessary training in a timely manner.

Whatever definition is used to describe the different behaviors that comprise contextual performance, there are differences between task and contextual performance that might be important when considering how organizations might motivate these different dimensions of performance (Borman

& Motowidlo, 1993). Variance in task performance is caused by individual differences in knowledge, skills and abilities while the variance in contextual performance tends to determined by individual differences in motivation and personality characteristics (Borman & Motowidlo, 1993). Also, the activities that embody task performance are role-prescribed, typically, while contextual activities are less likely to be role-prescribed. That contextual behavior is affected more by differences in volition and predisposition is most likely due to the fact that these activities are usually not part of formal job descriptions and easily enforced by the organization.

Since effective task and contextual performance are likely due to different individual variables (Borman & Motowidlo, 1993), organizations must consider this when designing selection systems. Along these same lines, not all motivation techniques might be equally effective in influencing task and contextual performance. In other words, motivational interventions might differentially affect task and contextual performance. For instance, an individual who takes time to help or encourage co-workers might spend less time on his or her task requirements or vice versa. In support of that idea, previous research has shown that when an individual is committed to a goal

focussed on task accomplishment they tend to perform fewer contextual behaviors (Wright, et al., 1993).

Before discussing how an organization might obtain desired performance, it is important to understand why an organization might value these different dimensions of performance. The significance of task performance on organizational effectiveness is fairly obvious. An organization that is unable to obtain adequate task performance from its employees will not be in business very long. The extent to which an individual is able to transform inputs into organizational outputs will affect variables such as productivity and, eventually, organizational performance.

The importance of contextual behaviors to an organization is not as straightforward or as easily understood. Reasons why contextual behaviors or activities could affect organizational effectiveness are usually based on "logical and conceptual rather than empirical" arguments (Borman & Motowidlo, 1993, p. 88). Behaviors similar to contextual behaviors have been shown to increase performance in a variety of situations. For instance, these behaviors have been positively associated with work unit performance in insurance companies (Podsakoff & MacKenzie, 1994), sales team effectiveness for

pharmaceutical sales teams (Podsakoff, Ahearne, &
MacKenzie, 1997) and revenue per full-time employee
equivalent as well as quality of performance measures in
limited-menu restaurants (Walz & Niehoff, 1996). It is
apparent from this research that contextual performance in
addition to task performance can influence organizational
effectiveness.

Obtaining Desired Performance

The next issue is determining how organizations can
elicit task and contextual behaviors from employees. There
are several ways that an organization can obtain desired
performance. For instance, the use of selection suggests
that an organization will hire people that are predisposed
to perform certain behaviors due to individual differences
in ability, personality, skill or knowledge. Another
option, trying to encourage employees to choose to perform
certain behaviors or motivation, assumes that there are
ways for an organization to stimulate performance through
external means; that performance can be increased beyond
the influence of an individual's characteristics.

For purposes of this literature review, I am not
interested in those individual differences that affect or
predict task and contextual performance. These are not
external techniques that can be manipulated by the

organization to increase performance. Instead, I will focus on theories of motivation that can be used to explain why individuals perform different behaviors.

<u>Motivating Performance</u>

Although, performance is defined as <u>behaviors</u> relevant to the goals of the organization not the outcomes of those behaviors (Astin, 1964), the typical dependent variable in motivation research is an outcome. The typical task used in much motivation research (i.e., goal setting) is designed so that actions or behaviors related to task performance will lead directly to a more favorable outcome. For instance, tasks used in goal setting experiments include relatively simple ones such as prose memorization, solving anagrams, sorting, and proofreading (i.e., Rothkopf & Billington, 1979; Shapira, 1989; Wright & Kacmar, 1995). All of these tasks are devised so the behaviors that lead to the goal (or outcome) being attained are task behaviors. In other words, the majority of research examining motivation techniques that might affect performance directly are investigating task performance and not contextual performance.

<u>Motivational antecedents of task performance</u>

As explained above, much of the motivation literature focuses on how to increase task performance. Theories

offered to explain why motivation techniques affect performance help to explain how individual behavior might be influenced. Some approaches to task motivation are based on cognitive choice. Cognitive choice approaches focus on how and why individuals choose between an array of behaviors. Expectancy theory (Vroom, 1964) is representative of the cognitive choice theories. According to this theory, an individual makes three judgments: the belief that a certain level of effort will lead to an outcome (i.e., level of performance), the belief that this first outcome will then lead to another outcome (i.e., a reward), and the degree to which the last outcome is valued. Basically, individuals are more likely to choose to perform behaviors that they believe they can successfully accomplish and that lead to outcomes that are valued. In general, this theory of motivation argues that individuals will choose to perform an action that maximizes personal utility. The individual will try to maximize benefits while minimizing costs associated with different courses of action.

Cognitive choice theories have broad implications for organizational performance beyond selection. Practical motivation techniques that have emerged from this research include compensation (increasing the subjective value of

the expected consequences) and training (increasing the expectancy that the behavior can be accomplished). This approach suggests that an organization can use methods in addition to selection to ensure the performance of needed behaviors. Organizations can manipulate rewards and other interventions to increase an individual's motivation to perform a variety of behaviors.

Motivational antecedents of contextual performance

Much of our current knowledge regarding motivation deals with motivating task performance with very little attention being paid to ways an organization could increase the contextual performance. The reason for this lack of empirical development might be due to the nature of contextual performance, which is different from task performance. The ability of an organization to motivate contextual performance is problematic for a number of reasons.

Generally, a theory of motivation is concerned with impacting particular behaviors (Kanfer, 1990). Usually these behaviors (or some fairly direct outcome of these behaviors) are identified or specified through job analysis, for instance. The ability to specify all desirable contextual behaviors or activities would be difficult. The many different activities that comprise

contextual performance would be hard for an organization to detail completely (Organ, 1988a). A complete listing of contextual activities would also include everyday gestures that might look out of place in a formal listing of job requirements (Organ, 1988a). If an organization decides to list only less mundane contextual activities then another problem could occur. Previous research in other areas has shown that by increasing the value of one action, an organization automatically decreases the value of other actions (Herrnstein, 1970). By only specifying a subset of contextual activities, the organization might upset the natural occurrence of other behaviors (Borman & Motowidlo, 1993; Organ, 1988a). Behaviors that are not required or identified might not be performed. The exclusion of these other behaviors might, ultimately, negatively impact organizational effectiveness.

Another difficulty with an organization trying to motivate contextual behaviors is that these behaviors are typically not included in a formal job description. In order to use some motivation techniques, organizations would have to require activities that go beyond what an individual's job entails (Borman & Motowidlo, 1993). Individuals in an organization might have adverse reactions

to being formally required to do what is not part of their formal job description.

A final problem with motivating contextual performance is the potential for an "overjustification effect" (Deci, 1971; 1975) where providing extrinsic rewards might weaken intrinsic reasons for performing the behavior (Organ, 1988a). This effect could motivate individuals to only perform these behaviors when they would be observed or when performing the behaviors might provide some direct benefit to the person performing them (Organ, 1988a).

One method suggested for overcoming some of the difficulties associated with motivating contextual performance is to use a comprehensive definition of contextual performance and not specific behaviors (Organ, 1988a). A broad definition of contextual performance would lead to a tenuous relationship between performing contextual activities and any rewards used as motivating factors. By using a broad definition of contextual performance, the overjustification effect might be minimized since individuals will be less likely to see a relationship between particular behaviors and specific extrinsic rewards. Also a broad definition of the activities that comprise contextual performance would

decrease the likelihood that particular behaviors would be seen as more and less valuable.

Another consideration when attempting to motivate contextual behaviors is that individuals might not perform these behaviors when they cannot be observed by others or when they might not lead to desired rewards (Organ, 1988a). This problem might be addressed by increasing the probability that the behaviors (or lack of behaviors) will be observed. Any motivation technique considered for contextual performance must deal with the problem that, in many cases, the absence or presence of contextual activities might not be visible in easily observed outcomes such as number of units produced.

Although few attempts have been made to investigate techniques that could directly affect contextual behaviors, the reasons why people perform contextual activities have been investigated. The motivational basis for contextual performance offers insight into potential methods that could be used as direct motivational interventions. This motivational approach is based on social exchange theory (Blau, 1964) and posits that performing contextual behaviors is a choice involving cognitive appraisal of the situation in which an individual determines whether to

perform certain behaviors. This approach is similar to the cognitive complexity theories regarding task performance.

Social exchange theory is based on the idea that individuals are motivated to act based on the benefits that these actions will bring from others (Blau, 1964). A social exchange relationship differs from an economic exchange relationship in that it relies more on non-specific obligations over time. Economic exchanges are more contractual in nature. To the extent that an individual perceives an organizational relationship as based on trust or fairness then the individual will tend to perform behaviors that go beyond task performance (Organ & Konovsky, 1989). It is much harder for an employee to alter task behaviors that are formally recognized and regulated by the organization when he or she believes they are being treated inequitably. However, since performance of contextual behaviors tends to be under the discretion of the individual, fairness perceptions should influence these behaviors more.

Social exchange theory, which is based on the idea that individuals will choose to perform actions based on an exchange relationship, is similar to the cognitive complexity theories that have been investigated with respect to the motivation of task performance. Both

approaches are based on the idea that individuals have to choose from alternative actions that are evaluated to determine which will maximize utility for the individual. In other words, individuals compare explicit or implicit costs and benefits in the exchange relationship to determine which action is most beneficial with the least cost.

Research to support a social exchange theory of motivation has focused on how different perceptions about relationships with the organization and individuals influence the choice to perform contextual behaviors. It has been suggested that these perceptions could impact contextual behaviors by contributing to the idea that the relationship an employee has with an organization is one of social exchange in addition to economic exchange (Organ, 1988b).

Research has supported a social exchange theory of employee motivation regarding contextual performance for both impersonal and personal relationships and exchanges within an organization. It has been found that individuals who believe they are treated fairly by the organization are more likely to add to the organization by choosing to perform behaviors such as helping and cooperating (Moorman, 1991). Other research that supports a social exchange

paradigm include significant relationships between perceived organizational support and behaviors such as assisting coworkers, making innovative suggestions, and volunteering for things not formally required by the job (Wayne, Shore, & Liden, 1997).

Additionally, perceptions of reward equity and recognition explain significant variance in behaviors such as speaking favorably of the organization and tolerates inconveniences without complaint (McNeely & Meglino, 1994). Finally, Organ and Konovsky (1989) find that cognitions with regard to pay and the job itself predict variance in behaviors similar to contextual performance such as helping others who have been absent and volunteering.

Relations between specific members of the organization have also been examined to determine if social exchange theory is applicable. Empirical evidence supports this theoretical basis for motivation in specific personal relationships. Variables that have proven to impact behaviors similar to contextual performance include quality of leader-member exchange (Settoon, Bennett & Liden, 1996; Wayne, et al., 1997), trust in supervisor (Konovsky & Pugh, 1994), perceptions of leader fairness (Farh, Podsakoff, & Organ, 1990), perceptions of leader supportiveness (Smith et al., 1983) and perceived quality of working

relationships with both coworkers and supervisor (Anderson & Williams, 1996).

These findings support the idea that variables beyond individual differences can affect the performance of contextual behaviors. However, this research is based primarily on perceptions of relationships and exchanges. At best, this research offers organizations an indirect way to influence contextual performance. Still missing from this literature are direct techniques that organizations might employ to increase contextual performance. Despite this absence, the theoretical reason for these relationships might provide guidance for determining direct motivation techniques.

Motivation Interventions

The lack of empirical evidence regarding motivation techniques for contextual performance does not necessarily indicate that techniques might not be able to be applied to contextual behavior only that they have not been. By understanding why individuals choose to perform certain behaviors over others, effective motivation techniques can be inferred. Based on the idea that individuals will choose actions that maximize benefits and minimize costs (as explained in cognitive complexity theories and social exchange theory) for both task and contextual performance,

two interventions appear to be likely in motivating contextual performance as well as influencing task performance. These two interventions are the presence of accountability and recognition. Both of these interventions are hypothesized to increase the salience or importance of the social context in which the task is performed. This increased importance should affect the behaviors an individual chooses to perform by altering the costs and benefits associated with different behaviors especially behaviors that are directed at others in the social environment.

Additionally, it appears that these techniques might be able to overcome some of the common problems associated with motivating contextual performance. As explained above there are a number of reasons that current motivation theories are not aimed at contextual performance. The inability or undesirability of detailing all desired behaviors as well as the problem of having to observe contextual performance are two primary reasons that contextual performance cannot be motivated in the same manner as task performance (Borman & Motowidlo, 1993; Organ, 1988a).

Accountability

Accountability has been defined as the condition of being answerable to audiences for one's actions or performance (Schlenker, 1986). The accountability literature assumes that individuals are motivated to "maintain the approval and respect of those to whom they are accountable" (Tetlock, 1985, p. 309). Without accountability, beliefs about appropriate goals, rules, and behaviors can lack personal salience (Schlenker, 1986). The presence of accountability, either implicitly or explicitly, serves to reinforce expectations and shared norms in a social context (Tetlock, 1992). In general, the presence of accountability will motivate individuals to perform whatever behaviors are expected.

Accountability leads both to self-regulation and social regulation of conduct (Schlenker, 1986). This implies that being answerable for one's actions to oneself or others will lead to monitoring of behavior. Individuals will tend to consider the reactions of others and other consequences before taking action. Being answerable for one's action will affect the costs and benefits associated with different behaviors which leads to regulation of conduct.

Under conditions of accountability individuals will tend to accept the socially acceptable option when it is obvious. This mechanism is referred to as the acceptability heuristic (Tetlock, 1992). Individuals will tend to perform behaviors and make decisions that are acceptable to the audience to which they are held accountable. This heuristic is especially strong when the expectations of the audience are known and there is little reason for the individual to behave differently. In other words, the benefit of doing what is expected (or the cost of not doing it) is greater under conditions of accountability since the individual will be held answerable for his or her actions.

According to the acceptability heuristic, individuals will do what is expected without exerting much cognitive effort. However, in ambiguous situations where the expectations of the audience are not clearly known, individuals will tend to use preemptive self-criticism. This type of coping with accountability can lead to an opposite effect from the acceptability heuristic in that individuals will exert a great deal of cognitive effort to deal with the accountability.

Most of the empirical research on pre-decisional accountability has focused on being accountable to others

or external audiences. In general, the operationalizations of accountability have reflected being answerable to either a specific or generalized external audience. For instance, operationalizations tend to lead participants to believe that their actions will become public, they will have to justify their actions or decisions, or that their actions will be evaluated by others (Schlenker, 1986). Examples of accountability include being required to submit a written assignment justifying evaluations made during an experiment (Mero & Motowidlo, 1995), meeting face-to-face with an individual who was the object of evaluation (Klimoski & Inks, 1990), and explaining and justifying an opinion to another participant (Tetlock, Skitka, & Boettger, 1989). Each of these manipulations of accountability involves a public justification and possible evaluation of an individual's actions. In other words, accountability involves individual identifiability with respect to a decision or performance.

The presence of accountability to others does tend to operate through the hypothesized mechanisms of acceptability and preemptive self-criticism with regard to task performance. Accountability, in the form of identifiability of personal contributions, does tend to lead to increased individual effort and performance on a

task (Latane, Williams, & Harkins, 1979). Given that individuals are expected to exert effort on the task, the presence of accountability will increase the cost of not exerting effort.

Results have shown that individuals performing in a group versus as an individual tend to exert less effort on physically exerting tasks such as hand clapping and shouting (Latane, et al., 1979). It is hypothesized that the individuals do not feel identifiable within the group and tend to engage in "social loafing" (Latane, et al., 1979). Once again, the costs of not exerting effort are less when individuals are not identifiable.

Results from other studies also support the findings that when individuals are identifiable within a group as a form of accountability, they will perform at a level comparable to when they are working alone (i.e., Jackson & Harkins, 1985; Kerr & Bruun, 1981). For instance, when not identifiable or accountable individuals tend to exert less effort on creative tasks such as songwriting (Jackson & Padgett, 1982). Additionally, individuals report exerting less effort on poem and editorial rating tasks (Petty, Harkins, Williams, & Latane, 1977).

Overall, it appears that individuals will exert more effort on the task when held accountable. These results

tend to support an acceptability explanation for behavior since individuals are choosing to do what is expected (i.e., work on the task).

With regard to task performance, accountability has also been shown to operate through the preemptive self-criticism mechanism. This is especially evident in decision-making tasks where the best answer is not obvious to participants. Under these conditions, individuals will tend to use more complex decision-making strategies and exert more cognitive effort on the task (McAllister, Mitchell & Beach, 1979; Weldon & Gargano, 1985). For example, on a multi-attribute judgment task participants who shared responsibility for the task produced fewer evaluations and used less complex judgment strategies than those solely responsible (Weldon & Gargano, 1985).

Additionally, other research has shown that more complex decision making can lead to "better" decisions. Individuals completing a performance appraisal task under conditions of high accountability took more and better notes that resulted in higher accuracy (Mero & Motowidlo, 1995). Also, individuals under conditions of accountability tend to be less susceptible to decision errors (Simonson & Nye, 1992; Simonson & Staw, 1992). If decision-making is defined as the task in these studies

then it can be argued that accountability in these situations leads to higher task performance; in other words, individuals are performing task behaviors more effectively as well as exerting more effort.

These effects on task performance can also be explained with a cost/benefit framework. When the expectations of the audience are unknown and individuals are accountable, individuals will engage in more complex cognitive processes because the benefit of doing so is greater. Since these individuals expect to justify their decision, the benefit of exerting effort in order to be able to explain their decision fully is greater.

The effect of accountability on behaviors similar to contextual performance has been examined much less frequently. However, research in laboratory settings has shown that individuals who anticipate being evaluated by others are more concerned about how they will appear to others (Carver & Scheier, 1985; Greenwald & Breckler, 1985). According to the theoretical bases for how accountability might affect performance, it seems likely that this concern for how one appears should increase the salience of the expectations within the social environment which should increase the value and benefit of performing interpersonally related behaviors.

Although, the effect of accountability on task performance has been observed in numerous studies, much less attention has been focused on the effects of accountability on contextual performance-type behaviors. In one study, participants performed behaviors to benefit another person who was not in distress when they believed they would be held accountable to this other person (Schoenrade, et al., 1986).

Additionally, management personnel in a high accountability team during a 10-day supervisory skills training session relied on more interdependent behaviors than low accountability teams (Fandt, 1991). Admittedly, the research in this area is sparse but the results tend to support the idea that individuals will perform behaviors that are interpersonal in nature when accountability is present.

Based on the idea that individual behavior can be explained using a cost-benefit framework for both task and contextual behavior, it seems likely that the presence of accountability could increase the benefits of certain behaviors. In addition, accountability as a motivation technique might overcome some of the difficulties associated with motivating contextual performance. For instance, the of individuals not performing contextual

behaviors when no being observed might be decreased by increasing the likelihood that individuals will be observed. Accountability increases individual identifiability and the likelihood of being observed.

Recognition

Individuals within an organization can be described as being motivated by many different rewards offered by the organization. Individuals can be motivated to perform through pay, recognition, or a sense of accomplishment, for instance. Rewards can be intrinsic (i.e., sense of accomplishment) or extrinsic (i.e., pay, recognition). Most organizations use a variety of rewards to attempt to motivate their employees.

Just as rewards can take many forms, the bases of rewards can also be varied. For example, rewards can be based on behaviors, outcomes of performance (such as productivity), tenure, or job knowledge. A salesperson might receive a reward based on the number of sales calls made per month (a behavior), the number of new clients (a performance outcome), or his/her score on a required test (job knowledge).

Using different bases for rewards can lead to different behaviors depending on how the reward is determined. Different patterns of behaviors may become

more or less important or valued depending on how an individual is rewarded. It is very important for an organization to understand what behaviors are motivated by different reward structures.

One basis for rewards could be either individual or group performance as measured by either behaviors or outcomes of behaviors. An individual who is rewarded based solely on his or her performance is said to have low outcome interdependence (Wageman, 1995) since the individual solely influences the level of the outcome received. If the basis of rewards is group performance then an individual has high outcome interdependence since others group members can affect the level of the outcomes (Wageman, 1995). For purposes of this dissertation, the outcome of interest is the external reward of recognition. However, much of the literature has focused on how outcome interdependence affects behavior when the outcomes are incentives or pay. Recognition is most likely a more conservative (less strong) example of the effect of high or low outcome interdependence on individual behavior since the reward is less tangible.

Empirical evidence shows that low versus high outcome interdependence (i.e., individual versus group rewards) lead to different patterns of behaviors in relation to task

and contextual performance. Under conditions of low outcome interdependence (individual rewards), individuals tend to experience a stronger link between individual effort and rewards. Alternatively, high outcome interdependence will lead to decreased task performance since individuals will have less control over their earnings (Lawler, 1990). In other words, low outcome interdependence increases the benefits of exerting effort on the task.

In comparison to rewards based on individual productivity, rewards based on group productivity lead to decreased task performance on tasks involving physical or cognitive effort (Harkins & Petty, 1982; Latane, et al., 1979; Petty, et al., 1977). It is hypothesized that individuals within groups who are not recognized based on their own effort tend to engage in "social loafing" (Williams, Harkins & Latane, 1981). This is especially true in situations where individual performance cannot be measured. For instance, participants receiving individual rewards were more productive in a number-guessing task (Miller & Hamblin, 1963). Also, on a card-sorting task the highest performance occurred under conditions of rewards based solely on individual performance (London & Oldham, 1977).

Alternatively, individual performance has been the same under group and individual pay structures when the groups were 10 individuals or less (Honeywell, Dickinson & Poling, 1997; Stoneman & Dickinson, 1989). It is hypothesized that the social loafing effect does not occur when groups are small enough for one individual to make a significant difference in the group performance (Dickinson & Gillette, 1993). Overall, these results indicate that individuals exert more effort on tasks when they are rewarded individually or when they believe that can significantly affect the group's performance, which will lead to a higher reward for them personally.

Less empirical evidence is available regarding the effect of reward structure on contextual behaviors. However, it has been hypothesized that under conditions of high outcome interdependence (group reward structure), individuals tend to perceive the task as more interdependent which can effect the way the individuals within the group view work requirements (Wageman, 1995). Individuals who perceive the task to be more interdependent would tend to be more aware of the social context and believe the task requires them to work together. This assumption about task interdependence could lead to a higher incidence of behaviors such as cooperation and being

helpful (Smith, et al., 1983). Also, group recognition will lead to contextual behaviors that are directed at others to be valued more since they support the group.

Empirical results support the hypothesis that high outcome interdependence does lead to increased behaviors similar to contextual behaviors (Shea & Guzzo, 1989). For instance, under a group reward structure versus an individual one, decision makers were significantly more willing to cooperate (Shi, et al., 1994). Other studies have also shown that outcome interdependence leads to more cooperative behavior. For instance, individual rewards led less cooperative behavior in a tower building exercise; to the point of individuals sabotaging others (Rosenbaum, Moore, Cotton, Cook, Heiser, Shovar & Gray, 1980). These results indicate that although individual effort on the task might decrease under high outcome interdependence, the individuals will be more likely to engage in contextual behavior.

<u>Hypotheses</u>

Based on the available empirical and theoretical literature regarding accountability and recognition, two sets of hypotheses are developed. These hypotheses address the potential effects of the two motivation interventions on task and contextual performance. For purposes of this

dissertation, task and contextual performance will be defined as the frequency of specified behaviors. For example, higher levels of contextual performance imply that specified behaviors are performed more frequently by the individual.

The first set of hypotheses deals with the effect of accountability on both task and contextual performance. These hypotheses are based on the idea that, in the presence of accountability, individuals will tend to enact behaviors that are expected from the relevant audience. This effect should hold true for both task and contextual performance.

In general, individuals will tend to do what is expected in situations where they are accountable and the expected behaviors are known (Tetlock, 1985). Research has supported this finding with regard to both task and contextual expectations. Individuals under conditions of high accountability tend to exert more effort on the task and do not tend to engage in social loafing (Jackson & Harkins, 1985; Jackson & Padgett, 1982; Petty, et al., 1977). These findings indicate that individuals know that they are expected to exert effort on assigned tasks and these expectations become more salient when accountability is present.

Findings with regard to accountability and contextual performance are somewhat more limited. Overall, it appears that individuals held accountable to targets of the helping engage in more helping behaviors. It seems that individuals know that they are expected to behave and interact in a particular way with others in a task group. Once again, the presence of accountability makes these expectations more salient. This increased salience should lead to increased levels of contextual performance such as helping, encouraging, and supporting. Thus,

Hypothesis 1a: Contextual performance will be higher when accountability is high versus low.

Hypothesis 2a: Task performance will be higher when accountability is high versus low.

The second set of hypotheses deals with the effect of group versus individual recognition on task and contextual performance. Individual recognition like low outcome interdependence will tend to strengthen the link between effort on the task and the reward of recognition (Wageman, 1995). However, individual recognition will also tend to decrease the importance of the social environment in which the task is performed. Individuals under low outcome interdependence (similar to individual recognition) tend to see their task as less interdependent then those under conditions of high outcome interdependence (similar to

group recognition). Under individual recognition, the belief that the behaviors directed at the task will be rewarded in conjunction with the decreased importance of the social environment lead to the following hypotheses.

Hypothesis 2a: Contextual performance will be lower under individual versus group recognition.

Hypothesis 2b: Task performance will be higher under individual versus group recognition.

It is important to note that the two motivation interventions are hypothesized to affect the two dimensions of performance differently. High accountability versus low accountability is hypothesized to increase both contextual and task performance. On the other hand, individual versus group recognition is hypothesized to increase one dimension of performance, task performance, while decreasing contextual performance. These differences between the expected motivation-performance relationships indicate that some motivation techniques might require a trade-off between task and contextual performance while other interventions may successfully motivate both dimensions of performance.

CHAPTER 2
METHODOLOGY

Experimental Setting

To test the hypotheses, a laboratory study was
designed. The validity of using a lab to study issues
related to organizational behavior has been called into
question previously. Specifically, the external validity
or generaliziability of the findings of such studies to
actual organizational members has been disputed. It is
argued that that the artificiality of the experimental
environment will limit the usefulness of the findings for
actual organizational settings (see Dipboye & Flanagan,
1979 for discussion). In general, the use of lab increases
the control a researcher has but decreases the realism
compared to a field study. However, it has also been
argued that the question should be is there enough realism
in the experiment to allow generalization (Locke, 1986).

Since the research question we are studying has
received very little attention in the current literature,
we believed that it was important to be able to control for

factors external to the manipulations. This control allowed us to determine if the manipulations were able to affect individual behavior in any way. If significant effects were not found in the controlled environment of a laboratory setting then replication in the field might not be necessary.

Another advantage of the lab was that it allowed individuals to be videotaped in order to be evaluated at a later time. Many of the field studies regarding contextual performance or similar behaviors have relied on self-report data or subjective evaluations of managers (e.g. Podsakoff, MacKenzie & Bommer, 1996; Puffer, 1987). By using a lab environment, we were able to have raters, with no prior relationship to the participants, evaluate individual behavior. Logically, this added benefit of the laboratory setting should decrease the likelihood of rating errors due to a more subjective evaluation.

Finally, although we believed that the control a laboratory setting afforded was desirable we were aware of the limitations of a laboratory setting and sought to address them when possible. We selected a task similar to a real business problem and designed the instructions to engage the participants in the task to the greatest extent possible.

<u>Sample</u>

The sample for the experiment was comprised of undergraduate students enrolled in an introductory management class at a large Southern university. The participants were given extra-credit for their participation in the experiment. The total number of participants was N=240 or 60 groups of 4 individuals each. The average age of the sample was 20.6 (standard deviation was 2.4). Although gender has not been shown as a predictor of behaviors similar to contextual performance (Organ and Ryan, 1995), to control for any possible effects of gender the sample contained 50% females and 50% males. Each group had 2 females and 2 males. The mode classification for the participants was the junior year in college (n=170, 71% of the total sample).

<u>Procedure</u>

An overview of the experimental procedure shows that there were two parts to the experiment. The first involved participants completing questionnaires (demographic, personality, and manipulation effectiveness) and working on the experimental task. During this part, the participants were videotaped working on the task. For part two of the experiment, expert raters evaluated each individual to

obtain the levels of task and contextual performance for each individual.

<u>Experimental Task</u>

The task selected for the experiment was a small group task. This task was chosen for two reasons in particular. The task was similar to an activity that might be encountered in a work setting; it was a business-related problem. The second reason for selecting the task was that it allowed the individuals within the group to interact but did not require them to interact. The task could be completed by an individual working alone or could be worked on together by the group.

Each group was comprised of four individuals including two males and two females. A group was used since some of the behaviors of interest are interpersonal in nature. Without others in the room, interpersonal interaction would not be possible. Generally, the idea of this group as cohesive or working towards a common goal is not important.

Participants were given a memo that described the task on which they would work (see appendix B for copy of memo). Basically, the memo stated that the participants were employees of a computer company assigned to a task force to come up with new computer software product ideas. The verbal instructions stressed that the total number of ideas

was the important variable not the quality of the ideas. Each individual was assigned the role of manager for one of four departments: educational software, computer games, office software, or sports software. Participants were told that the software ideas had to be from one of the four above departments but the ideas did not have to be from the specific department to which they were assigned.

After reading the memo, participants were then given specific directions to reflect the conditions of high or low accountability and group or individual recognition. Then, participants were given fifteen minutes to complete the task. Additionally, each group was videotaped while working on the task. Later, expert raters evaluated the videotapes.

Personality Measures

Previous research has determined that personality is a determinant of an individual's task and contextual performance. In order to control for the possible effects of personality, we measured two dimensions of personality that have proven to predict task and contextual performance in other research.

Agreeableness.

The personality dimension of agreeableness is part of a five-factor description of personality (McCrae & Costa,

1989). Individuals high in agreeableness tend to describe themselves as warm, kind and cooperative. Previous research has shown that agreeableness is correlated with behaviors similar to those in contextual performance (Organ & Lingl, 1995; Smith, et al., 1983). We measured this trait using an instrument consisting of seven bi-polar scales anchored with positive and negative poles (Goldberg, 1992; see appendix C for personality measures). Individuals were asked to describe themselves based on how closely the adjectives represented their personality. Internal consistency results for this scale were .88 which is consistent with other reported internal consistency measures (Goldberg, 1992).

Conscientiousness

Conscientiousness is another dimension of the big five personality structure. Individuals high on conscientiousness tend to describe themselves as organized, responsible and hardworking. Facets of conscientiousness have been shown to be correlated with task performance (Borman, White, Pulakos & Oppler, 1991; Van Scotter & Motowidlo, 1996). We also measured this trait using an instrument consisting of seven sets of bi-polar scales anchored with positive and negative poles (Goldberg, 1992). The internal consistency of this as measured by coefficient

alpha was .88 which is consistent with internal consistency levels reported in other studies (Goldberg, 1992)

Independent Variables

Operationalizations of the independent variables were designed to ensure that the desired psychological effect was likely. Based on operationalizations in other experimental settings, we chose to manipulate accountability and recognition in the following manner.

Accountability

Accountability has been operationalized as engaging in a face-to-face meeting with some external audience (Klimoski & Inks, 1990), being asked to justify a decision or opinion (Tetlock, et al., 1989), and public knowledge of a decision (McAllister, et al., 1979). We desired to manipulate accountability by making an individual answerable to other members in his or her task group. In this case, the audience to which an individual is held accountable is the other group members. The operationalization was the presence or absence of peer evaluations. This operationalization is consistent with the idea that accountability makes an individual identifiable.

Each individual read the memo describing the task and then were given general directions regarding the task.

Additionally, individuals in groups under the condition of high accountability were told that after completing the task they would complete an evaluation of the other three group members who would also evaluate them. Individuals in groups in the low accountability condition were told nothing about completing evaluations after the task.

The effectiveness of the accountability manipulation was measured using a two-item scale. The scale was a five-point scale consisting of 1=strongly disagree, 2=somewhat disagree, 3=nuetral, 4=somewhat agree, and 5=stronly agree. The items were "I expected the group to evaluate my performance" and "I felt responsible to the group". Results from both manipulation checks were significant and in the direction expected indicating that the manipulation was successful ("expected evaluation": mean for low accountability=4.12 (SD=1.6), mean for high accountability=5.72 (SD=1.14), t=8.92, p<.01; "felt responsible to group": mean for low accountability=4.57 (SD=1.6), mean for high accountability=5.54 (SD=1.25), t=5.18, p<.01; correlation between two items=.61).

<u>Recognition</u>

Although recognition has not been operationalized in a laboratory setting as frequently as accountability, the operationalization is still based on previous literature.

In a vein similar to outcome interdependence (Wageman, 1995), we wanted individuals to believe that the level of recognition received was either solely under their control or dependent on the performance of others. Basically, we wanted individuals to be motivated to perform as an individual or motivated to perform as a member of a group.

After reading the memo and receiving general directions about the task, individuals in the individual recognition condition were instructed that the only performance of interest was individual achievement. They were further informed that individual achievement was based on the number of ideas each individual suggested either orally or in writing. These individuals were instructed that at the end of the experiment a list would be posted showing how well each individual performed. Additionally, participants were told the location of the posting which was in a public area familiar to them.

Individuals in the group recognition condition were given similar instructions except that the performance of interest was group achievement. Group achievement was defined as the total number of ideas the group generated regardless of whom suggested them. These participants were also told that a list would be posted showing how well each group performed.

The recognition manipulation was evaluated with one-item. The item was a seven-point bi-polar scale anchored at one end by "my primary concern was my own individual performance" and anchored at the other end by "my primary concern was the performance of my group". Results from the manipulation check were significant and in the direction expected indicating that the manipulation was successful (mean for individual recognition=4.58 (SD=1.85), mean for group recognition=5.58 (SD=1.36), t=4.77, p<.01).

<u>Dependent Variables</u>

The dependent variables of task and contextual performance were measured using five-item frequency scales for particular behaviors. Raters watched the videotapes of the groups completing the task to complete the ratings. The expert rater evaluated each individual in the group for the frequency of the defined behaviors.

<u>Contextual performance</u>

Contextual performance was measured using a five-item scale. The scale was a frequency scale consisting of five-points: 1=never, 2=rarely, 3=some, 4=frequently, and 5=always. The items were "show a friendly interest in others", "seem concerned for the feelings of others", "express a pleasant and upbeat attitude", "try to help and support others on the team", and "cooperate as a team

member". This scale was developed to reflect interpersonal behavior that could be expected in this type of experimental setting. Also, these were behaviors similar to ones observed in earlier pilot studies of the same task. It should be noted that these behaviors tended to be more general so raters were not looking for a specific behavior.

Based on interviews with the raters, differences between individuals for the frequency of these behaviors were obvious. For instance, some individuals introduced themselves to others and inquired about others' performance on the exam (i.e., "showed a friendly interest in others" while other individuals did not ask about the other members of the group. Also, some individuals would encourage other group members when they suggested ideas by telling them "hey, that's a great idea" or "that's really good, that could actually work". Alternatively, other individuals would not support or cooperate with others by discounting their ideas with statements such as "that's not a good idea, it won't work".

Separately, two raters evaluated every participant in the experiment. The correlation between the two raters was .72. The two scores for each individual were aggregated to create a single contextual performance score for each individual which served as the dependent variable. The

inter-rater reliability for the two raters combined was .85 (corrected using the Spearman-Brown prophesy).

Task performance

Task performance was measured using a similar five-item frequency scale. The scale was also based on 1=never and 5=always. The five items were "stay focused on the task at hand", "concentrate fully on generating ideas", "show determination in getting the task done", "show conscientiousness and diligence in accomplishing the task", and "exert effort on task requirements". Similar to the contextual performance scale, these behaviors were chosen because they were likely to be observed in a controlled, experimental setting and had actually been observed in pilot studies. Once again, these behaviors tended to be defined generally to avoid the problem of raters looking for very specific behaviors.

Again, based on interviews with the raters, examples of how individuals differed on this scale became evident. Some individuals would work up until the alarm on timer went off. They would ask if they could "just finish this last idea" when the experimenter entered the room. Other individuals would look around the room, seem unengaged in the task and actually pick up the timer to count down the final few seconds aloud before the alarm sounded.

Separately, two raters evaluated every participant in the experiment. These raters were independent of the two who evaluated contextual performance. The correlation between the two raters was .49. The two scores for each individual were aggregated to create a single contextual performance score for each individual which served as the dependent variable. The inter-rater reliability for the two raters combined was .66 (corrected using the Spearman-Brown prophesy).

Method of Analysis

Analysis of variance (ANOVA) was used to test the hypotheses regarding the effect of the accountability and recognition on both task and contextual performance. The ANOVA was a 2x2 design with accountability and recognition being between subjects factors. Both factors contained two levels: high versus low for accountability and group versus individual for recognition.

Tests of Hypotheses

We first examine the descriptive statistics and correlations between the dependent and independent variables in order to determine if the statistics are within acceptable and expected ranges. Unless otherwise noted, all results are based on a total sample size of 240. Also, in all statistical tests, accountability was dummy coded with 0 indicating low accountability and 1 indicating high accountability. Recognition was also dummy coded with 0 indicating group recognition and 1 indicating individual recognition.

Table 3.1
Correlations between independent and dependent variables

	1	2	3	4	5	6
1. Accountability[a]	--					
2. Recognition[b]	--	--				
3. Agreeableness	.12	.10	--			
4. Conscientiousness	.07	.17	.26*	--		
5. Task Performance	.19 *	-.05	.08	.05	--	
6. Contextual Performance	.29*	-.19*	.03	-.01	.37*	--

* denotes p<.05 based on two-tailed significance testing

a = dummy coded 0=low, 1=high

b = dummy coded 0=group, 1=individual

Table 3.2
Descriptive statistics for dependent and independent
variables

	Mean	SD
Accountability	--	--
Recognition	--	--
Agreeableness	50.75	5.96
Conscientiousness	50.28	7.54
Task Performance	36.60	7.35
Contextual Performance	35.57	10.13

Personality variables of agreeableness and
conscientiousness were included due to previous research
showing them to be correlated with contextual and task
performance, respectively. However, based on the
correlations, we decided to exclude the personality
variables as covariates since they were not significantly
correlated with either dependent performance variable.

Contextual performance

We first tested hypotheses 1a (high versus low accountability will lead to higher contextual performance) and 2a (individual versus group recognition will lead to lower contextual performance) regarding the effect of accountability and recognition on contextual performance. We conducted an analysis of variance using contextual performance as the dependent variable and accountability and recognition as the two between-subjects factors.

The results of this analysis indicate two significant main effects and a significant interaction. Results for contextual performance are shown in Table 3.3.

Table 3.3
Results of analysis of variance for accountability and recognition on contextual performance

Effects	df	SS	MS	F	η^2
Accountability	1	2047.5	2047.5	23.41*	.08
Recognition	1	893.2	893.2	10.21*	.04
A x R	1	948.0	948.0	10.84*	.04
Total	239	24532.8	102.6		

* denotes $p < .01$

Since each factor only had two levels, we were able to determine if the hypotheses were supported by examining the patterns of means for the contextual performance variable. We found strong support for the hypothesis that high

accountability will lead to higher levels of contextual performance as compared to low accountability (hypothesis 1a). We also found strong support for the hypothesis that group recognition will lead to higher levels of contextual performance than individual recognition (hypothesis 2a). Table 3.4 shows the patterns of means for contextual performance, including marginal means showing the main effects.

Table 3.4
Patterns of means for contextual performance

	Low Accountability	High Accountability	
Individual Recognition	Mean = 28.7 SD = 14.4	Mean = 38.5 SD = 6.4	Mean = 33.6 SD = 12.2
Group Recognition	Mean = 36.6 SD = 7.1	Mean = 38.4 SD = 7.1	Mean = 37.5 SD = 7.1
	Mean = 32.7 SD = 12.0	Mean = 38.5 SD = 6.7	

As shown in the ANOVA results, we also found a significant interaction between accountability and recognition on contextual performance. This interaction was not expected or hypothesized. However, since an interaction did occur, we will discuss the nature of the interaction.

The interaction indicated that under conditions of individual recognition, the presence of high accountability leads to a greater increase in contextual performance than under conditions of group recognition. In other words, to impact contextual performance high accountability is more necessary under individual recognition than group recognition. It may be that group recognition causes the situation to be sufficiently strong as to swamp any additional effect of accountability on contextual performance. However, the same is not true under individual recognition, therefore, accountability still affected contextual performance. Figure 3.1 illustrates the interaction between accountability and recognition for contextual performance.
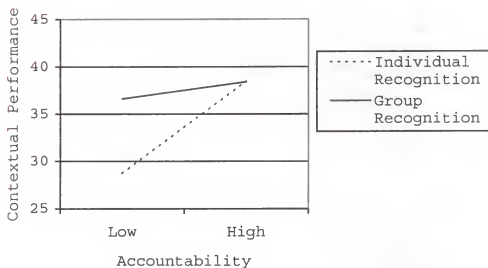
Figure 3.1
Plot of the effect of accountability and recognition on
contextual performance

Task performance

After examining the effects of accountability and
recognition on contextual performance, we then tested
hypotheses 1b (high versus low accountability will lead to
increased task performance) and 2b (individual versus group
recognition will lead to increased task performance)
dealing with task performance. Using an analysis of
variance, we examined the effects of accountability and
recognition on task performance. We found a significant
main effect for accountability and no other significant
effects. The F-statistic for accountability was

significant at a p<.01 level. The results and effect sizes
are presented in Table 3.5.

Table 3.5
Results of analysis of variance for accountability and
recognition on task performance

Effects	Df	SS	MS	F	η^2
Accountability	1	453.7	453.8	8.62*	.04
Recognition	1	30.8	30.8	0.59	.00
A x R	1	13.1	13.1	0.32	.00
Total	239	12925.6	54.1		

* denotes p<.01

   In order to determine if the significant main effect
of accountability was in the direction hypothesized, we
examined the patterns of means for task performance. The
means indicate strong support for the hypothesis that high
accountability will lead to higher levels of task
performance than low accountability (hypothesis 1b). The
results of the ANOVA do not support the hypothesis that
individual recognition will lead to higher levels of task
performance than group recognition (hypothesis 2b). Table
3.6 presents the means for each cell as well as the
marginal means indicating the main effects.

Table 3.6
Patterns of means for task performance

	Low Accountability	High Accountability	
Individual Recognition	Mean = 35.1 SD = 6.6	Mean = 37.4 SD = 7.6	Mean = 36.2 SD = 7.2
Group Recognition	Mean = 35.4 SD = 8.5	Mean = 38.6 SD = 6.1	Mean = 37.0 SD = 7.5
	Mean = 35.2 SD = 7.6	Mean = 38.0 SD = 6.9	

Additional Analysis

Although the data did not support the hypothesis regarding the group recognition will lead to decreased task performance, the data seemed to indicate that the recognition manipulation did have differential effects on performance depending on the type of performance measured. Based on this observation, we hypothesized that recognition would differentially affect the two dimensions of performance. In other words, we were examining the data to determine if a recognition by type of performance interaction existed.

To test this hypothesis, we analyze the data using a 2x2x2 analysis of variance. The three factors were composed of two between subjects factors (accountability

and recognition) and on within subjects factors (type of performance). The type of performance factor was made up of two levels: task or contextual. We had ratings of each type of performance for every participant.

Before conducting the ANOVA, we standardized the performance scores so a significant effect would not be found solely due to scaling differences between the types of performance. By standardizing the scores, we removed any effects that might occur due to differences in the scales. Scores were standardized by transforming them to Z-scores within each type of performance.

The results of the ANOVA supported the post-hoc hypothesis. We found a significant recognition by type of performance interaction, two significant main effects, and a significant three-way interaction (type of performance x recognition x accountability). The significant main effects were not surprising given the results from the previous 2x2 ANOVAs. The hypothesis that recognition would affect performance differently depending on the type of performance measured was supported. The results of the 2x2x2 ANOVA are presented below.

Table 3.7
Results of analysis of variance for accountability (A),
recognition (R), and type of performance (P) on
standardized performance scores

Source of Variance	df	MS	F	η^2
Between factors				
Accountability	1	27.1	22.0**	.08
Recognition	1	6.9	5.6**	.02
A x R	1	3.2	2.6	.01
Error (S/AR)	236	1.2		
Within factors				
Performance Type	1	0.0	0.0	
P x A	1	1.2	2.1	.01
P x R	1	2.4	4.1*	.02
P x A x R	1	6.2	10.5**	.04
Error (SP/AR)	236	.6		

* denotes p<.05, ** denotes p<.01

The nature of the two-way interaction was that moving
from individual to group recognition has a stronger effect
on contextual performance than task performance. In other
words, there is more of an increase in contextual
performance versus task performance when moving from
individual to group recognition. On the other hand, there
is not as much of an increase in task performance when
moving from individual to group recognition. Table 3.8

shows the means for the standardized performance scores and
also illustrates the nature of the performance x
recognition interaction.

Table 3.8
Patterns of means for standardized performance scores

Contextual Performance

	Low Accountability	High Accountability	
Individual Recognition	Mean = -.67 SD = 1.43	Mean = .11 SD = 1.04	Mean = -.19 SD = 1.20
Group Recognition	Mean = .10 SD = .70	Mean = .28 SD = .70	Mean = .19 SD = .70
	Mean = -.29 SD = 1.18	Mean = .29 SD = .66	

Task Performance

	Low Accountability	High Accountability	
Individual Recognition	Mean = -.20 SD = .90	Mean = .11 SD = 1.04	Mean = -.05 SD = .98
Group Recognition	Mean = -.17 SD = 1.15	Mean = .27 SD = .83	Mean = .05 SD = 1.02
	Mean = -.19 SD = 1.03	Mean = .19 SD = .94	

The three-way interaction can be best understood by examining graphs depicting the data. The nature of the three-way interaction appears to be that under conditions of low accountability the two-way interaction of type of performance by recognition is much stronger than under high accountability. In other words, high accountability resulted in muting the type of performance effect such that similar main effects are observed for recognition and accountability regardless of type of performance.
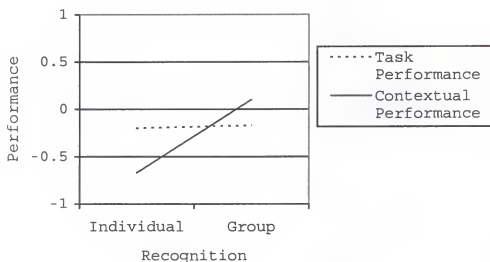
Figure 3.3
The effect of recognition and type of performance on standardized performance scores under low accountability
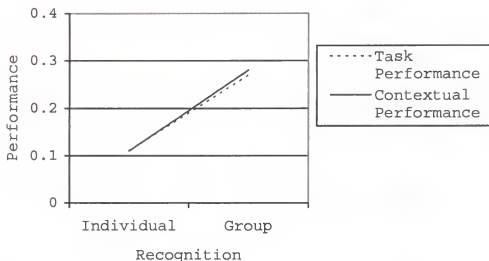
Figure 3.3
The effect of recognition and type of performance on
standardized performance scores under high accountability

Summary of results

In general, the results were in the directions
hypothesized. High versus low accountability led to both
increased task and contextual performance. Individual
versus group recognition led to significantly lower
contextual but had no effect on task performance. However,
based on that finding and additional analyses, we found a
significant type of performance by recognition interaction
indicating that the presence of individual versus group
recognition affects performance differently depending on
the type of performance.

CHAPTER 4
DISCUSSION

Findings

The purpose of this dissertation is to extend both the contextual performance and motivation literature by investigating if there are motivation techniques that might be applied to encourage individuals to perform both task and contextual behaviors. Additionally, based on the expected relationships, we are curious about the extent to which motivating one dimension of performance might differentially effect other dimensions of performance.

The results from this study indicate that it might be possible for organizations to use motivation techniques to elicit not only task performance behaviors but also contextual behaviors. Although previous research has identified traits that organizations might use to select employees, desired levels of contextual performance might also be able to be motivated by organizations. Specifically, the results from this study reveal that the two motivation interventions investigated in this dissertation could be utilized to encourage individuals to

be more helpful, encouraging and supportive. However, the results also indicate that the motivation interventions affect task performance differently.

The presence of high accountability in the form of being held accountable to others in a group leads to more behaviors directed at the task and behaviors directed at getting along with and helping others in the group. In other words, it appears that an individual who is accountable to others will tend to fulfill the expectations of others regarding both task and contextual performance.

Additionally, recognizing an individual based on the group's performance as opposed to individual performance also leads to increased interpersonal support behavior. Contrary to the hypothesis, group recognition as opposed to individual recognition did not lead to decreased task performance. In this study, it does not appear that task performance varies depending on whether recognition is based on group or individual performance; individuals work equally hard under both conditions.

Generally, the results of the tests of the hypotheses are in the direction expected. Group recognition and high accountability lead individuals to engage in more contextual behaviors. This could indicate that to the extent that individuals are motivated to choose to perform

behaviors that are beneficial to them (highest benefits with lowest costs), they will choose to act in a helpful, encouraging and supportive way when the importance of the social context is increased. These results imply that increasing contextual performance is possible through organizational or outside interventions.

The results for contextual performance also show that the presence of accountability affects the level of contextual performance differently depending on whether group or individual recognition is present. It seems that under group recognition, the added presence of accountability does not dramatically affect contextual behavior. However, when individuals are recognized based solely on their individual performance than the presence of accountability leads to a significant increase in behaviors such as helping, encouraging, and being pleasant. These findings would seem to indicate that if interpersonal behaviors such as being supportive and friendly are important and valued then recognition should be based on group achievement or accountability should be used in conjunction with recognizing individuals for their own, individual performance.

In total, these results suggest that there is not necessarily a trade-off between task and contextual

performance; that both types of behaviors may be successfully encouraged in some cases. One motivation technique (accountability) increases behavior directed at task accomplishment as well as interpersonally directed behavior. However, a different technique (recognition) increases interpersonal, contextual behavior but has no effect on task behavior. These results would seem to suggest that the type of performance being measured might affect the relationship between the motivation intervention and performance.

In fact, based on additional analysis we found that the different motivation interventions affect performance differently depending on the type of performance being measured. Recognizing individuals based on their individual performance causes the individual to perform significantly fewer interpersonal behaviors directed at helping and being cooperative but does not affect the amount of behaviors directed at task accomplishment. Alternatively, the presence of accountability leads to an increase in both types of performance.

The implication of this finding is that it is important to realize that motivation interventions might differentially affect the dimensions of performance. It appears that some motivation interventions can increase

both task and contextual behaviors while others may create a trade-off between the dimensions of performance or increase one but not the other. If an increase in behaviors such as encouraging, cooperating, and being pleasant are desired then organizations must be aware of the potential effect (or lack of effect) on behaviors directed toward to the task.

Practical Implications

Overall, the results of this study have numerous implications for organizations. The most important implication is that organizations might be able to use motivation interventions to elicit both task and contextual behaviors from employees. Both the making individuals answerable to members of their group as well as basing recognition on the performance of the group not individuals leads to more interpersonal behaviors such as helping, cooperating, and remaining pleasant. This finding supplements the majority of literature dealing with how organizations can attain contextual performance. Previous literature regarding this dimension of performance has provided guidance with regard to selection by identifying individual differences that predispose the person to enact these behaviors. The findings here indicate that, in addition to selecting people who are predisposed to perform

these behaviors, there are possible ways an organization can manipulate the task environment that also will cause individuals to perform these desired behaviors.

An additional finding is that while organizations might be able to encourage individuals to perform these interpersonal behaviors, they need to be aware of how motivation interventions might differentially affect the dimensions of performance. The findings indicate that some motivation interventions increase both dimensions of performance while others might increase one or the other dimensions. Organizations that desire these interpersonal behaviors must also be aware that the motivation interventions that increase them might have no or a positive effect on behaviors directed at the task. While the effects of motivation techniques on task performance have been studied, the effects of these techniques on contextual performance or on both dimensions simultaneously are not as evident.

Research Implications

Beyond potential implications for organizations, these results point out potential areas for future research. Areas for future research can be divided into one of three areas: 1) other mechanisms that could be used to motivate both task and contextual performance, 2) potential

moderators of the relationships found in this dissertation,
and 3) mediators of the motivation intervention-performance
relationships.

Research focussing on other motivational interventions
that might elicit desired behaviors could rely on the
motivational framework used in this study. By causing some
behaviors to be more salient and important, it may cause
those behaviors to be seen as more valuable and the choice
to not perform them would seem to imply some sort of
negative consequence. High versus low accountability as
well as group versus individual recognition are both
hypothesized to increase the salience of the social
environment, which should make interpersonal contextual
behaviors more important. It may be that other motivation
interventions could have the same effect. For instance, it
may be that non-specific goals such as "create a more
helpful and pleasant work environment" might be effective
in motivating contextual behaviors even though specific
goals are more effective at motivating task performance
(Locke & Latham, 1990).

A number of potential moderators that might be
investigated in future studies could be delineated based on
whether the variables are group or individual
characteristics. Previous research has discovered both

individual and group characteristics that lead to increased task and contextual performance. Altering some of these conditions might reveal variables that will serve as moderators of the motivation intervention-performance relationship. For instance, group cohesiveness has been shown to influence individual behavior within a group (Schachter, Ellerston, McBride & Gregory, 1951; Seahorse, 1954). However, in this study, we have groups of individuals who work on a task for a short period of time. Due to the fairly brief interaction between group members cohesiveness between is not likely. Since, evidence suggests that group cohesiveness can affect individual behavior within a group in terms of applicable norms and variance of behaviors (Seahorse, 1954), it may be that highly cohesive groups create behavioral expectations that may or may not include contextual behaviors. These norms may be sufficiently strong to cause interventions to be less useful or effective in motivating other behaviors.

Another group characteristic that might be investigated is the level of required task interdependence perceived in the group. Individuals in groups with high interdependence tend to perform more behaviors similar to contextual performance (Pearce & Gregerson, 1991; Smith, et al., 1983). Therefore, the presence of other outside

interventions such as accountability might not have as significant effect on levels of contextual performance. Groups that have been together for long periods of time and expect to remain together might also create norms for behavior that cannot be altered by the use of accountability or recognition.

In addition to group characteristics, there are also individual differences that have been shown to affect levels of contextual performance. Although we found no evidence that the personality factors of agreeableness or conscientiousness significantly affected the relationship between the motivation interventions and performance, other individual differences might significantly affect the relationship. Individual differences that have been shown previously to predispose an individual to perform contextual activities are a good place to start. Individual differences that are significantly correlated with behaviors similar to contextual performance include collectivism (Moorman & Blakely, 1995), concern for others (McNeely & Meglino, 1994), and positive mood (George, 1991). Future research could determine if any of these individual differences lead individuals to perform interpersonal contextual behaviors more or less than others when outside motivation interventions are present or

absent. Alternatively, it may be that when a stronger situation is created by an organization (i.e., use of accountability) that individual differences or personality traits no longer are able to explain variance in performance.

Future research could also focus on the mechanisms by which these interventions have an effect on individual performance. Discovering mediating variables or mechanisms might contribute information as to what other interventions might also prove effective. The influence of the expectations of others within the work group might contribute to certain interventions leading to increases in both task and contextual performance. However, determining the mediating mechanism for those interventions that do not lead to increases in both dimensions of performance might highlight what type of motivation techniques will create a trade-off between the different dimensions of performance.

Limitations

The findings of this study must be considered in light of the limitations that exist within this dissertation. All of the critiques about the generalizability of laboratory studies to organizational settings apply to this study. For purposes of this dissertation, the choice to sacrifice realism for control seems necessary due to the

lack of empirical evidence regarding the research question of how to motivate contextual performance. Whether the findings discussed here will be similar in organizational settings is an empirical question. By examining these motivation techniques in a controlled setting and detecting a significant effect, it now makes sense to attempt to replicate the effect in an organizational setting.

Another limitation of this particular lab study is the choice of the task. The task requires only limited interaction between members of a group who do not know each other before the task and are not likely to anticipate interaction after the task is completed. A task that requires greater interaction over a period of time might result in different effects of the motivation interventions on performance.

By selecting a short-term task that involves a group of individuals that do not expect future interactions, the presence of variables such as group cohesiveness that might be occur in organizational settings are not likely to affect the outcomes. Not varying the task as well as variables such as group composition (i.e., equal gender distribution, no existence of previous relationship between group members) may be a limitation of this study but also leads to future research questions.

Conclusion

Overall, the results presented here lead to two important conclusions. One, it appears that organizations might be able to utilize motivation interventions to elicit not only task behaviors but also contextual behaviors. Previous research in motivation has tended to concentrate on how to encourage employees to perform their task better. Additionally, previous research regarding contextual performance has focused on identifying individual differences that predispose a person to perform these behaviors. This research indicates that organizations can hire individuals predisposed to contextual performance if the organizations desire and value these interpersonal behaviors. The results in this study indicate that an organization that desires and values behaviors such as encouraging others, being supportive, and cooperative also could implement programs using accountability and group recognition to increase the likelihood that these behaviors will be performed.

A second important finding presented here is that, while organizations might be able to motivate individuals to perform contextual behaviors, different interventions can affect the dimensions of performance differently. The presence of accountability increases both task and

contextual performance but individual versus group
recognition motivated performance differently depending on
the type of performance.

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APPENDIX A
DIRECTIONS FOR PARTICIPANTS

INSTRUCTIONS FOR GROUPS

SESSION _____

Thank you for your participation. This is an exercise that
is similar to those used by organizations in assessment
centers during the interview process. I am evaluating this
task as part of my dissertation to determine if it could be
used by an organization to determine who would be a
successful employee. In a couple of minutes, I will give
you a description of the task you will be working on.
Basically, you are all employees of a computer company
assigned to a task force that is trying to expand its number
of products. Your job is to help think of new products for
this company. You have 15 minutes to complete this
exercise. (Handout task materials so they have a couple of
minutes to look them over.) After the 15 minutes needed to
complete the task is over, I will return to collect all the
written materials and the videotape.

Hi accountability - Individual reward
After your group is finished with this task, you will each
complete a written evaluation of the other three people in
the group which will also be collected. You will evaluate
the others on how well they performed as a group member
which includes behaviors such as encouraging others, helping
develop ideas more completely and contributing to the group
in general. The written materials, videotape of your group,
and the evaluations will be analyzed to determine how much
each of you contributed. Your individual performance will
be based on the number ideas you suggest and the written
evaluations from the other group members. After the
experiment, I will post a list that will show how well each
person did. Be sure to keep your identification number so
you can find out how you performed relative to everyone else
in the class. I want to stress the only performance of
interest is individual achievement.

INSTRUCTIONS FOR GROUPS

SESSION _____

Thank you for your participation. This is an exercise that
is similar to those used by organizations in assessment
centers during the interview process. I am evaluating this
task as part of my dissertation to determine if it could be
used by an organization to determine who would be a
successful employee. In a couple of minutes, I will give
you a description of the task you will be working on.
Basically, you are all employees of a computer company
assigned to a task force that is trying to expand its number
of products. Your job is to help think of new products for
this company. You have 15 minutes to complete this
exercise. (Handout task materials so they have a couple of
minutes to look them over.) After the 15 minutes needed to
complete the task is over, I will return to collect all the
written materials and the videotape.

Hi accountability - Group reward
After your group is finished with this task, you will each
complete a written evaluation of the other three people in
the group which will be collected. You will evaluate the
others on how well they performed as a group member which
includes behaviors such as encouraging others, helping
develop ideas more completely and contributing to the group
in general. The written materials, videotape of your group,
and group evaluations will be analyzed to determine how well
your group did on the task. The group's performance will be
based on the total number ideas and the written evaluations
from the other group members. After the experiment, I will
post a list that will show how well each group did. Be sure
to keep your group identification number so you can find out
how your group performed relative to the other groups in the
class. I want to stress that the only performance of
interest is group achievement.

INSTRUCTIONS FOR GROUPS

SESSION _____

Thank you for your participation. This is an exercise that
is similar to those used by organizations in assessment
centers during the interview process. I am evaluating this
task as part of my dissertation to determine if it could be
used by an organization to determine who would be a
successful employee. In a couple of minutes, I will give
you a description of the task you will be working on.
Basically, you are all employees of a computer company
assigned to a task force that is trying to expand its number
of products. Your job is to help think of new products for
this company. You have 15 minutes to complete this
exercise. (Handout task materials so they have a couple of
minutes to look them over.) After the 15 minutes needed to
complete the task is over, I will return to collect all the
written materials and the videotape.

Low accountability - Individual reward
The written materials and videotape of your group will be
analyzed to determine how much each of you contributed.
Your performance will be based on the number ideas you
suggested. After the experiment, I will post a list that
will show how well each person did. Be sure to keep your
identification number so you can find out how you performed
relative to everyone else in the class. I want to stress the
only performance of interest is individual achievement.

INSTRUCTIONS FOR GROUPS

SESSION   _____

Thank you for your participation. This is an exercise that is similar to those used by organizations in assessment centers during the interview process. I am evaluating this task as part of my dissertation to determine if it could be used by an organization to determine who would be a successful employee. In a couple of minutes, I will give you a description of the task you will be working on. Basically, you are all employees of a computer company assigned to a task force that is trying to expand its number of products. Your job is to help think of new products for this company. You have 15 minutes to complete this exercise. (Handout task materials so they have a couple of minutes to look them over.) After the 15 minutes needed to complete the task is over, I will return to collect all the written materials and the videotape.

Low accountability - Group reward
The written materials and videotape of your group will be analyzed to determine how well your group did on the task. The group's performance will be based on the total number ideas. After the experiment, I will post a list that will show how well each group did. Be sure to keep your group identification number so you can find out how your group performed relative to the other groups in the class. I want to stress that the only performance of interest is group achievement.

APPENDIX B
TASK MEMO FOR PARTICIPANTS

INTERNAL MEMO

TO: Department Manager

RE: New product development

DATE: September 14, 1998

Thanks for your participation in this task force. As you
know, our company is facing increasing competition and have
decided to expand our software division. Since we have very
few products in this area we need for you to generate some
new ideas. Basically, we need the task force to accomplish
only one thing:

1)   <u>We need this task force to come up with as many ideas
      as possible that might interest the company</u>. There are
      no restrictions on the type of software that you can
      suggest. However, the product or products must be from
      at least one of the following divisions: office
      software, computer games, educational software, or
      sports software.

I know that all of you are busy with other projects so do
not take more than 15 minutes to complete these tasks.
Also, some worksheets have been provided to write down your
ideas. Feel free to use as many as you need. Thanks again
for participating in this task force.

PRODUCT IDEAS

Office Software

_____

_____

_____

_____

_____

Computer Games

_____

_____

_____

_____

_____

Educational Software

_____

_____

_____

_____

_____

Sports Software

_____

_____

_____

_____

_____

APPENDIX C
PERSONALITY MEASURE

How Accurately Can You Describe Yourself?

Please use this list of common human traits to describe
yourself as accurately as possible. Describe yourself as
you see yourself at the present time, not as you wish to be
in the future. Describe yourself as you are generally or
typically, as compared with other persons you know of the
same sex and of roughly the same age.

**Please circle the number that most accurately describes you,
using the following rating scale:**

	Very		Moderate		Neither		Moderate		Very	
cold	1	2	3	4	5	6	7	8	9	warm
unkind	1	2	3	4	5	6	7	8	9	kind
uncooperative	1	2	3	4	5	6	7	8	9	cooperative
selfish	1	2	3	4	5	6	7	8	9	unselfish
disagreeable	1	2	3	4	5	6	7	8	9	agreeable
distrustful	1	2	3	4	5	6	7	8	9	trustful
stingy	1	2	3	4	5	6	7	8	9	generous
disorganized	1	2	3	4	5	6	7	8	9	organized
irresponsible	1	2	3	4	5	6	7	8	9	responsible
negligent	1	2	3	4	5	6	7	8	9	conscien-tious
impractical	1	2	3	4	5	6	7	8	9	practical
careless	1	2	3	4	5	6	7	8	9	thorough
lazy	1	2	3	4	5	6	7	8	9	hardworking
extravagant	1	2	3	4	5	6	7	8	9	thrifty

APPENDIX D
POST-EXPERIMENTAL QUESTIONNAIRE AND MANIPULATION CHECKS

ID NUMBER _____

Please provide the following information.

Age: _____

Gender: _____

Classification: Freshman   Sophomore   Graduate
(circle one)
                    Junior   Senior

Rate each of the following statements on a scale of 1 to 7.
The low end of the scale is 1 (strongly disagree) while the
high end of the scale is 7 (strongly agree).

	Strongly Disagree	Disagree		Neutral		Agree	Strongly Agree
I felt responsible to the other people in my group.	1	2	3	4	5	6	7
I expected the group to evaluate my performance.	1	2	3	4	5	6	7

Please circle the number that describes your performance on
this task.

My actions were directed at increasing my individual performance.	1 2 3 4 5 6 7	My actions were directed at increasing the group's performance.

EVALUATIONS OF GROUP MEMBERS

Department Manager 1

_____
_____
_____
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_____

Department Manager 2

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Department Manager 3

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Department Manager 4

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APPENDIX E
DIRECTIONS AND SCALES FOR EXPERT RATERS

Directions for raters:

For each videotaped group, you will evaluate each member individually. There are four members in each group. Each member represents a different department. In every group, the members are seated in the same order. From left to right on the TV screen, the group members represent department 1, 2, 3, and 4.

Please complete the attached forms for each group member. The form is designed to measure the frequency of certain behaviors.

Please be as discerning as possible when evaluating.

Thanks for your help.

Group number: _____

Member evaluated: 1   2   3   4

Please complete the following scale for each group member.

To what degree did this person:

	Never	Rarely	Some	Frequently	Always
Show a friendly interest in others	1	2	3	4	5
Seem concerned for the feelings of others	1	2	3	4	5
Express a pleasant and upbeat attitude	1	2	3	4	5
Try to help and support others on the team	1	2	3	4	5
Cooperate as a team member	1	2	3	4	5

Group number: _____

Member evaluated:　　　　1　　　　2　　　　3　　　　4
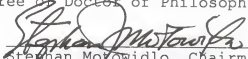
Please complete the following scale for each group member.

To what degree did this person:

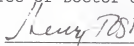|	Never	Rarely	Some	Frequently	Always
Stay focused on the task at hand	1	2	3	4	5
Concentrate fully on generating ideas	1	2	3	4	5
Show determination in getting the task done	1	2	3	4	5
Show conscientiouness and diligence in accomplishing the task	1	2	3	4	5
Exert effort on task requirements	1	2	3	4	5

BIOGRAPHICAL SKETCH

Amy Brownlee received her Bachelor of Science in Business Administration from the University of Florida in 1990. She majored in Finance. After working as a financial analyst in the financial services industry for three years, she returned to the University of Florida for her Master of Business Administration degree. She was awarded that degree in May 1995. Amy began work on her Doctorate degree in management at the University of Florida in August 1995 and was awarded the degree in August 1999.
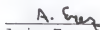
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Stephan Motowidlo, Chairman
Professor of Management

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Henry Tosi
Professor of Management

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Amir Erez
Assistant Professor of
Management

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Barton Weitz
J.C. Penney Eminent Scholar
of Marketing

This dissertation was submitted to the Graduate Faculty of the Department of Management in the Warrington College of Business Administration and to the Graduate School, and was accepted as partial fulfillment of the requirements for the degree Doctor of Philosophy.

August 1999

Dean, Graduate School